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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RYUICHI IWAMURA

Appeal 2010-009392
Application 10/790,496
Technology Center 2400

Before THOMAS S. HAHN, ELENI MANTIS MERCADER, and BRADLEY W. BAUMEISTER, *Administrative Patent Judges*.

HAHN, *Administrative Patent Judge*.

DECISION ON APPEAL[1]

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[1] The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the "MAIL DATE" (paper delivery mode) or the "NOTIFICATION DATE" (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

Appellant invokes our review under 35 U.S.C. § 134(a) from the rejection of claims 1-25. We have jurisdiction under 35 U.S.C. § 6(b). We affirm-in-part.

STATEMENT OF THE CASE[2]

Appellant claims an electronic network system and method for communicating between network components. At least one network component is configured for wireless and wired path communications, and a server and/or the component determine(s) the type of communications path to use.[3] Claims 1 and 18 are illustrative:

1. A home entertainment system, comprising:

at least one server configured for both wired and wireless communication; and

at least one component configured for communicating with the server along a wired path and also being configured for communicating with the server along a wireless path, the server and/or the component determining which path to use for communication based on at least one of: a component preference, a bandwidth capability, an occupancy ratio.

18. A system for communicating between at least first and second components in a home network, comprising:

means for establishing a wired communication path between the components;

means for establishing a wireless communication path between the components;

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[2] We refer for respective details to Appellant's Appeal Brief, filed May 20, 2009 (hereinafter App. Br.), the Examiner's Answer, mailed May 24, 2010 (hereinafter Ans.), and the Supplemental Reply Brief, filed May 27, 2010 (hereinafter Reply Br.). Further, we note that arguments not made by Appellant have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

[3] *See generally* Spec. 4:2–6:20; 11:4-9; 12:10–13:16; Figs. 1-3, 6, 7.

means for communicating data over a component-preferred path when a component-preferred path is indicated, the component-preferred path being selected from the wired and wireless communication paths;

means for, when no component-preferred path is indicated, communicating data over at least one of the paths based on at least one of: a bandwidth capability, an occupancy ratio.

Rejections

The Examiner, under 35 U.S.C. § 103(a), rejected claims 1-25 as being unpatentable over Falvo, U.S. Patent Publication 2003/0140343 A1 (Ans. 6-12).

The Examiner, under 35 U.S.C. § 112, 2nd paragraph, rejected claims 18-25, which contain means-plus-function language, as being indefinite (Ans. 3-5).[4]

Appellant's Contentions

Appellant asserts that Falvo fails to teach or suggest having a component "communicate over both a wired and a wireless link as required by Claim 1" (App. Br. 4). Relying on this asserted Falvo deficiency, Appellant additionally asserts that Falvo consequently provides "no reason to undertake the determination in Claim 1 of selecting which path to use, much less to undertake the determination using the specific parameters claimed" (*id.*).

Appellant asserts for claim 9 that Falvo fails to teach or suggest both (i) "determining that both a wired and a wireless path exist between the

[4] On April 12, 2010, an Order Remanding Appeal to Examiner was issued directing the Examiner to determine if claims 18-25 meet the requirements of 35 U.S.C. § 112, 2nd paragraph. The Examiner issued a second Examiner's Answer, mailed on May 24, 2010, that newly rejected these claims for being indefinite. Appellant traverses this rejection in the Supplemental Reply Brief filed May 27, 2010 (Reply Br. 1-3). Accordingly, we address *infra* the raised appeal issue.

components" and (ii) "the particular order of link selection tests required by Claim 9" (App. Br. 6).

Appellant *inter alia* contends claim 18 is patentable for the reasons asserted for claims 1 and 9 (*id.*).

With regard to the § 112 rejection, Appellant cites Specification disclosures including "flow charts" and argues that the identified material provides adequate disclosure to show what is meant by the means-plus-function claim language cited by the Examiner as being indefinite (Reply Br. 1-3).

ISSUES

Appellant's contentions present us with the following issues:

1. Does Falvo, under § 103(a), teach or suggest configuring a component for communicating along both wireless and wired paths, and for determining which path to use as recited in claim 1?
2. Does Falvo, under § 103(a), teach or suggest determining the existence of wired and wireless paths, and communicating data over a path selected as recited in claim 9?
3. Does Falvo, under § 103(a), teach or suggest communicating data over a path selected as recited in claim 18?
4. Does Appellant's Specification disclose structure sufficient under 35 U.S.C. § 112, 2nd paragraph, for showing what is meant by the claim 18 recited "means for, when no component-preferred path is indicated, communicating data over at least one of the paths based on at least one of: a bandwidth capability, an occupancy ratio"?

FINDINGS OF FACT

The following findings of fact (FF) are supported by a preponderance of evidence:

The Invention

1. Appellant discloses that "wireless bandwidth occupancy ratio is obtained by dividing currently used bandwidth by the total available bandwidth of the transmitter" (Spec. 12:18-19).
2. Appellant's Specification further discloses that "network bandwidth rarely stays constant, such that the present invention recognizes that it is sometimes desirable that the transmitter switch links." Logic "for adaptive network path control" is shown in Figure 7 (Spec. 12:10-15).

Falvo

3. Falvo discloses a digital cable TV system 300 (*see* Figure 3) that includes "wired display devices 320, 325," which "display devices . . . [also] support both HomeRF and 802.11b wireless protocols" (¶ [0048]). Additionally, Falvo discloses that the digital cable system 300 includes "wireless display . . . devices 310, 315" (*id.*).

PRINCIPLES OF LAW

Examined claims are interpreted as broadly as is reasonable using ordinary and accustomed term meanings so as to be consistent with the specification, *In re Thrift*, 298 F.3d 1357, 1364 (Fed. Cir. 2002), while "taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant's specification," *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997), and without reading limitations from examples given in the

specification into the claims, *In re Zletz*, 893 F.2d 319, 321-22 (Fed. Cir. 1989).

An Examiner's articulated reasoning for a rejection must possess a rational underpinning to support the legal conclusion of obviousness. *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). The Supreme Court has stated that "'[r]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.'" *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (quoting *Kahn*, 441 F.3d at 988). The Supreme Court has further stated that "[w]hen a work is available in one field of endeavor, design incentives and other market forces can prompt variations . . . . If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability." *Id.* at 417.

ANALYSIS

Claims 1-8

Appellant separately argues independent claim 1 by initially contending that Falvo fails to teach or suggest having a component "communicate over both a wired and a wireless link" (App. Br. 4).

The Examiner cites to Falvo, paragraph [0048], and finds the reference "discloses display devices 310, 315, 320, 325 support[] both wired connection and wireless connection (802.11b or HomeRF wireless protocols)" (Ans. 13).

Claim 1 recites "at least one component configured for communicating with [a] server along a wired path and also . . . along a

wireless path." Using ordinary and accustomed term meanings, we fail to find any claim 1 limitation that narrows the component communications to be over both wired and wireless links as asserted by Appellant (App. Br. 4). Instead, we find a broadly reasonable interpretation for the recited component as being "configured," i.e., arranged or set up to communicate using wired and wireless paths. *See Thrift*, 298 F.3d at 1364. We find Falvo display devices *support* both wired and wireless communications, e.g., display devices 320 and 325 (FF 3) and, therefore, we agree with the Examiner in finding that Falvo displays are read on by claim 1. Consequently, we are not persuaded by Appellant's initial argument.

Appellant relies on the initial asserted Falvo deficiency to additionally argue that the reference provides "no reason to undertake the determination in Claim 1 of selecting which path to use, much less to undertake the determination using the specific parameters claimed" (App. Br. 4). In view of our being unpersuaded by Appellant's assertion that Falvo is deficient concerning wired and wireless path configurations, we also are unpersuaded by Appellant's *ipso facto* argument that Falvo is consequently deficient as to reasoning for determining whether to use wired or wireless paths (*see id.*).

The Examiner denotes that claim 1 recites "determining which path to use for communication based on at least one of: a component preference, a bandwidth capability, an occupancy ratio" (Ans. 13-14). Further, the Examiner finds and reasons that Falvo "discloses selecting the path based on the component preference. By default, the prefer[red] connection for display devices 320 and 325 are twisted pair connections and the prefer[red] connection for display devices 310, 315 are wireless connections" (Ans. 14).

We agree with and adopt the Examiner's findings as to wired and wireless connections for Falvo display devices 310, 315, 320, and 325 (*accord* FF 3).

Appellant, however, argues:

> [U]nlike Claim 1 in which (1) a server and/or (2) a component determines which path to use for communication based on *component* preference, at most Falvo appears to suggest that a *human* sets up message transmission parameters apparently to suit the communication path selected by *the human*, although Falvo does not even say this much. Regardless, because the rejections are based on a clearly erroneous misunderstanding that Falvo "by default" suggests a *server or component* selecting a path based on a *component* preference, neither of which is true, the rejections constitute clear reversible error.

(Reply Br. 4-5). Appellant cites Falvo paragraph [0061] as evidence that "comes closer than elsewhere" from the reference for suggesting that a human, as opposed to server or a component, selects a type of communication path (Reply Br. 4). We find that this cited Falvo paragraph discloses that a "message originator . . . sets up a plurality of message transmission parameters" (¶ [0061]). Appellant has not cited any other evidence of record. We, however, find that Falvo further discloses that transmission parameters include "destination, format, or the like" (¶ [0060]). Thus, we find that Falvo discloses that a human sets up "destination, format, or the like," but nowhere do we find Falvo teaches or suggests that a human selects any communication path type. We, accordingly, fail to find any teaching or suggestion that the selection of path type is made by a human as argued by Appellant. Since Falvo teaches both wired and wireless configurations, there implicitly has to be a selection made between the configuration types. The Examiner reasons that by default Falvo selects configuration paths based on component preferences (Ans. 14). We do not

find persuasive evidence or argument in the record that overcomes this reasoning. *See In re Lamberti*, 545 F.2d 747, 750 (CCPA 1976) ("[T]he question under 35 U.S.C. § 103 is not merely what the references expressly teach, but what they would have suggested to one of ordinary skill in the art at the time the invention was made." (citation omitted)).

For the foregoing reasons, we will sustain the obviousness rejection of claim 1. We will also sustain the rejection of dependent claims 2-8 that are not separately argued. *In re Nielson*, 816 F.2d 1567, 1572 (Fed. Cir. 1987).

Claims 9-17

Appellant separately argues independent claim 9 with an initial assertion that Falvo fails to teach or suggest "determining that both a wired and a wireless path exist between the components" (App. Br. 6).[5] What Appellant argues is that "because two components may be connected over both of two paths . . . does not mean that any determination of such is explicitly made as claimed" (*id.*).

This argument is narrower than the recited limitation in that the recited "between the components" is without antecedent including whether two or more components are covered. Additionally, we do not find any evidence of record that the recited "between" would be understood by an ordinarily skilled artisan as restricting the number of components to two. We find from using ordinary and accustomed meanings for recited terms that a reasonably broad interpretation for the disputed limitation reads on the

[5] Claim 9 recites: "A method for communicating a home network, comprising: determining that both a wired and a wireless path exist between the components; determining whether at least one of the components prefers a particular path and if so, communicating data over that path; otherwise communicating data over at least one of the paths based on at least one of: a bandwidth capability, an occupancy ratio."

Falvo teaching to support display devices with both wired and wireless communication links (FF 3), as is found by the Examiner (Ans. 14). In particular, we fail to find the recited "determining" is anywhere narrowed. Accordingly, we find the limitation to be reasonably broad enough to encompass deciding that both a wired path exists (*see* twisted pair interconnecting display device 320/325 and WLAN bridge 330) and a wireless path exists (*see* wireless communication between display device 310/315 and WLAN bridge 330). Thus, we find the claim reads on the Falvo teaching to support display devices with both wired and wireless communications links.

Appellant also asserts that Falvo fails to teach or suggest the limitations for "determining whether at least one of the components prefers a particular path and if so, communicating data over that path; otherwise communicating data over at least one of the paths based on at least one of: a bandwidth capability, an occupancy ratio." What Appellant argues is that:

> [A]s signaled by the term "otherwise", the protocol in Claim 9 differs slightly from Claim 1 in that a preferential path determination is first made and only then is a bandwidth/occupancy ratio determination made. Since Falvo admittedly teaches no protocol at all for link selection it most certainly cannot suggest the particular order of link selection tests required by Claim 9.

(App. Br. 6.)

We find Appellant's contention that claim 9 differs from claim 1 to be unavailing. Claim 1 recites making a determination "based on at least one of" three parameters; whereas claim 9 recites making a determination to communicate data over a component's preferred path "otherwise communicating data over" a path based on at least one of two other

parameters. Like claim 1, we find from using ordinary and accustomed term meanings and a reasonably broad interpretation that claim 9 recites a method for alternative path selection based on at least component preference, which the Examiner and we find to be taught by Falvo (*supra*; *accord* FF 3). We fail to find persuasive evidence or argument in the record disputing this interpretation. Accordingly, we are not persuaded that the Examiner erred in rejecting claim 9.

For the foregoing reasons, we will sustain the rejection of claim 9. We, accordingly, will also sustain the rejection of claims 10-17 that are not separately argued. *Nielson*, 816 F.2d at 1572.

Claims 18-25

I

Independent claim 18 stands rejected under § 112, 2nd paragraph, because a means-plus-function limitation was found by the Examiner to be indefinite (Ans. 3), namely "means for, when no component-preferred path is indicated, communicating data over at least one of the paths based on at least one of: a bandwidth capability, an occupancy ratio." According to the Examiner this limitation is indefinite because the Specification does not disclose (i) an algorithm to determine the bandwidth capability or the occupancy ratio" (Ans. 4); (ii) "how . . . current transmitter bandwidth is determined" (*id.*); and (iii) "if or how the bandwidth is measured" (Ans. 5).

Appellant traverses the rejection (Reply Br. 1-3), and cites disclosures (Spec. 4:2-14) as explaining that included flow charts, e.g., Fig. 7, illustrated logic for software or hardware elements to perform claimed functions (Reply Br. 2). The Examiner acknowledges that "portions of the specification and drawings may appear to describe the corresponding structure for performing

the claimed function: Fig. 7, Spec. 12 (last paragraph); 13 :9-16" (Ans. 4). Appellant contends that these disclosures cited by the Examiner indeed do adequately describe hardware structure and software logic for performing claimed functions (Reply Br. 1-2).

Appellant asserts that a "formula for determining occupancy ratio" is disclosed at Spec. 12:18-19 (Reply Br. 3). We agree (FF 1, 2). Appellant further asserts

> "[B]andwidth" is a common term of art that skilled artisans . . . recognize to mean simply data throughput as a function of time, typically expressed in data elements per second and routinely measured by most computing devices, see, e.g., www.dictionary.com which gives several definitions of the term that say just that. The present application requires use of "current transmitter bandwidth" which plainly means the number of data elements per second the transmitter currently is sending.

(Reply Br. 3.) Based on at least the cited evidence, we agree with Appellant that bandwidth is a term of art known to ordinarily skilled artisans.

From our review of the identified Specification disclosures and Figure 7, as well as Appellant's explanatory arguments and cited evidence, we are persuaded that the Examiner erred in rejecting claims 18-25 under § 112, 2nd paragraph, as being indefinite, and we will not sustain the rejection.

II

The Examiner also rejected claims 18-25 under § 103(a) (Ans. 10-12), and Appellant separately argues independent claim 18 relying *inter alia* on arguments asserted for claims 1 and 9 (App. Br. 6). We find the following limitation is pivotal, namely "means for, when no component-preferred path is indicated, communicating data over at least one of the paths based on at least one of: a bandwidth capability, an occupancy ratio." Unlike claims 1

and 9, we find this limitation positively recites that "no component-preferred path is indicated" and that data is to be communicated over a path "based on at least one of: a bandwidth capability, an occupancy ratio."[6]

The Examiner finds that "*FALVO* fails to explicitly disclose that the server determining which path to use for communication based [on] one of the component preference or bandwidth capability and the occupancy ratio" (Ans. 10). The Examiner then finds and reasons that:

> *FALVO*, however, discloses that display devices 320, 325 are connected to WLAN 330 via twisted pair and the display devices are [sic] also support both HomeRF and 802.11b wireless protocol (see paragraph 0048).
>
> Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made [sic] selects the path based on the bandwidth capacity of the link or occupancy ratio of the link in order to improve the system's performance where wireless connection may be more suitable for a connection for the server is currently serving multiples twisted pair connections and available for wireless connection or the server may be serving multiple wireless connections and available for wired connection.
>
> (*Id.*)

From our review of Falvo we concur with the Examiner and Appellant that the reference is silent as to using a wired or wireless path based on "bandwidth capability" or "occupancy ratio." Based on the record, however, we conclude the Examiner erred. We find the Examiner made conclusory

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[6] The Examiner and Appellant appear to have interpreted the disputed means for limitation as covering both the functionalities of (i) selecting a path based on at least one of the bandwidth capability and occupancy ratio, and (ii) communicating data over the selected path (*see* Ans. 10 and App. Br. 6-7). Claim interpretation is not an issue raised by Appellant. Arguments not made by Appellant are deemed to be waived. *See* 37 C.F.R. § 41.37 (c)(1)(vii).

statements without articulated reasoning concerning an ordinarily skilled artisan appreciating that if a preferred communications path is not selected an improvement would be provided by selecting a path based on "bandwidth capability" or "occupancy ratio" (*id.*). *KSR*, 550 U.S. at 418. For example, the Examiner is silent as to what could be the improvement. Implicitly, the improvement might involve bandwidth capability, but how Falvo might be modified to achieve that or any other improvement is not addressed. Consequently, in order for us to sustain the rejection, we would need to resort to impermissible speculation or unfounded assumptions or rationales to supply deficiencies in the bases for the rejection before us. *In re Warner*, 379 F.2d 1011, 1017 (CCPA 1967).

For the foregoing reasons, we will not sustain the rejections under §§ 103(a) and 112, 2nd paragraph, of independent claim 18. We, accordingly, also will not sustain these rejections for claims 19-25.

CONCLUSIONS

We conclude that:

1. Falvo, under § 103(a), teaches configuring a component for communicating along both wireless and wired paths, and for determining which path to use as recited in claim 1.
2. Falvo, under § 103(a), teaches determining the existence of wired and wireless paths, and communicating data over a path selected as recited in claim 9.
3. Falvo, under § 103(a), teaches communicating data over a path selected as recited in claim 18.

4. Appellant's Specification discloses structure sufficient under 35 U.S.C. § 112, 2nd paragraph, for showing what is meant by the claim 18 recited "means for, when no component-preferred path is indicated, communicating data over at least one of the paths based on at least one of: a bandwidth capability, an occupancy ratio."

ORDER

The Examiner's rejection of claims 1-17 is affirmed. The Examiner's rejections of claims 18-25 are reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(v).

AFFIRMED-IN-PART

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